AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1   1-25 (Canceled)

1   26. (New) A method to facilitate simulating a digital circuit, comprising:

2   receiving a description of the digital circuit, wherein a first portion of the

3   description is in a hardware description language and a second portion of the

4   description is in a computer programming language,

5   blending the first portion and the second portion into an executable

6   simulation; and

7   executing the executable simulation, wherein executing the executable

8   simulation allows a designer to simulate operation of the digital circuit.

1   27. (New) The method of claim 26, wherein blending the first portion and

2   the second portion involves mapping data types native to the hardware description

3   language to data types native to the computer programming language.

1   28. (New) The method of claim 26, wherein blending the first portion and

2   the second portion involves creating a wrapper for code written in the computer

3   programming language so that code written in the hardware description language

4   can call code written in the computer programming language.

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1   29. (New) The method of claim 28, wherein the wrapper provides

2   communication mechanisms between code written in the hardware description

3   language and code written in the computer programming language.

1   30. (New) The method of claim 28, wherein the wrapper is automatically

2   generated.

1   31. (New) The method of claim 28, wherein the wrapper provides

2   automatic threading.

1   32. (New) The method of claim 31, wherein automatic threading enables

2   code written in the computer programming language to call code written in the

3   hardware description language.

1   33. (New) The method of claim 28, wherein the wrapper can output a

2   message upon an occurrence of a call and a return, wherein the message can

3   include values associated with the call and the return.

1   34. (New) A computer-readable storage medium storing instructions that

2   when executed by a computer cause the computer to perform a method to

3   facilitate simulating a digital circuit, the method comprising:

4   receiving a description of the digital circuit, wherein a first portion of the

5   description is in a hardware description language and a second portion of the

6   description is in a computer programming language,

7   blending the first portion and the second portion into an executable

8   simulation; and

9   executing the executable simulation, wherein executing the executable

10   simulation allows a designer to simulate operation of the digital circuit.

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1   35. (New) The computer-readable storage medium of claim 34, wherein

2   blending the first portion and the second portion involves mapping data types

3   native to the hardware description language to data types native to the computer

4   programming language.

1   36. (New) The computer-readable storage medium of claim 34, wherein

2   blending the first portion and the second portion involves creating a wrapper for

3   code written in the computer programming language so that code written in the

4   hardware description language can call code written in the computer programming

5   language.

1   37. (New) The computer-readable storage medium of claim 36, wherein

2   the wrapper provides communication mechanisms between code written in the

3   hardware description language and code written in the computer programming

4   language.

1   39. (New) The computer-readable storage medium of claim 36, wherein

2   the wrapper is automatically generated.

1   40. (New) The computer-readable storage medium of claim 36, wherein

2   the wrapper provides automatic threading.

1   41. (New) The computer-readable storage medium of claim 40, wherein

2   automatic threading enables code written in the computer programming language

3   to call code written in the hardware description language.

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1   42. (New) The computer-readable storage medium of claim 36, wherein

2 the wrapper can output a message upon an occurrence of a call and a return,

3 wherein the message can include values associated with the call and the return.

1   43. (New) An apparatus to facilitate simulating a digital circuit,

2 comprising:

3   a receiving mechanism configured to receive a description of the digital

4 circuit, wherein a first portion of the description is in a hardware description

5 language and a second portion of the description is in a computer programming

6 language,

7   a blending mechanism configured to blend the first portion and the second

8 portion into an executable simulation; and

9   an executing mechanism configured to execute the executable simulation,

10 wherein executing the executable simulation allows a designer to simulate

11 operation of the digital circuit.

1   44. (New) The apparatus of claim 43, further comprising a mapping

2 mechanism configured to map data types native to the hardware description

3 language to data types native to the computer programming language.

1   45. (New) The apparatus of claim 43, further comprising a creating

2 mechanism configured to create a wrapper for code written in the computer

3 programming language so that code written in the hardware description language

4 can call code written in the computer programming language.

1   46. (New) The apparatus of claim 45, further comprising a communication

2 mechanism configured to communicate between code written in the hardware

3 description language and code written in the computer programming language.

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1   47. (New) The apparatus of claim 45, wherein the wrapper is automatically
2   generated.

1   48. (New) The apparatus of claim 45, wherein the wrapper provides
2   automatic threading.

1   49. (New) The apparatus of claim 48, wherein automatic threading enables
2   code written in the computer programming language to call code written in the
3   hardware description language.

1   50. (New) The apparatus of claim 45, wherein the wrapper can output a
2   message upon an occurrence of a call and a return, wherein the message can
3   include values associated with the call and the return.

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